



6712-01

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 20 and 68

[CG Docket Nos. 12-32 and 13-46 and WT Docket Nos. 07-250 and 10-254; FCC 15-144]

Hearing Aid Compatibility Standards

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Commission proposes to amend its hearing aid compatibility (HAC) rules to enhance equal access to the national telecommunications network by people with hearing loss and implement the Twenty-First Century Communications and Video Accessibility. The proposed changes would expand the scope of the wireline HAC rules, add a volume control requirement for wireless handsets, address recently revised technical standards, and streamline the process for enabling industry to use new or revised technical standards for assessing HAC compliance.

DATES: Comments are due **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** and Reply Comments are due **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments, identified by CG Docket Nos. 12-32 and 13-46 and WT Docket Nos. 07-250 and 10-254, by any of the following methods:

- **Electronic Filers:** Comments may be filed electronically using the Internet by accessing the Commission's Electronic Comment Filing System (ECFS), through the Commission's web site <http://fjallfoss.fcc.gov/ecfs2/>. Filers should follow the instructions provided on the web site for submitting comments. For ECFS filers, in completing the transmittal screen, filers should include their full name, U.S. Postal service mailing address, and CG Docket Nos. 12-32 and 13-46 and WT Docket Nos. 07-250 and 10-254.

- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although the Commission continues to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

For detailed instructions for submitting comments and additional information on the rulemaking process, see the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Robert Aldrich, Consumer and Governmental Affairs Bureau, Disability Rights Office, at 202-418-0996 or e-mail Robert.Aldrich@fcc.gov.

SUPPLEMENTARY INFORMATION: Pursuant to 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th Street, SW, Room TW-A325, Washington, DC 20554. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial Mail sent by overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail should be addressed to 445 12th Street, SW, Washington, DC 20554.

This is a summary of the Commission's document FCC 15-144, Access to Telecommunications Equipment and Services by Persons with Disabilities; Petition for Rulemaking Filed by the Telecommunications Industry Association Regarding Hearing Aid Compatibility Volume Control

Requirements; Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets; and Comment Sought on 2010 Review of Hearing Aid Compatibility Regulations, Notice of Proposed Rulemaking, adopted October 23, 2015, and released October 30, 2015, in CG Docket Nos. 12-32 and 13-46 and WT Docket Nos. 07-250 and 10-254. The full text of document FCC 15-144 will be available for public inspection and copying via ECFS, and during regular business hours at the FCC Reference Information Center, Portals II, 445 12th Street, SW, Room CY-A257, Washington, DC 20554. Document FCC 15-144 can also be downloaded in Word or Portable Document Format (PDF) at:

<https://www.fcc.gov/encyclopedia/disability-rights-office-headlines>. This proceeding shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules. 47 CFR 1.1200 et seq. Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent with 47 CFR 1.1206(b). In proceedings governed by 47 CFR 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc,

.xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

INITIAL PAPERWORK REDUCTION ACT OF 1995 ANALYSIS

Document FCC 15-144 seeks comment on proposed rule amendments that may result in modified information collection requirements. If the Commission adopts any modified information collection requirements, the Commission will publish another notice in the Federal Register inviting the public to comment on the requirements, as required by the Paperwork Reduction Act. Pub. L. 104-13; 44 U.S.C. 3501-3520. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, the Commission seeks comment on how it might further reduce the information collection burden for small business concerns with fewer than 25 employees. Pub. L. 107-198; 44 U.S.C. 3506(c)(4).

SYNOPSIS:

Revised Wireline Volume Control Standard

1. Pursuant to section 710 of the Communications Act of 1934, as amended (Act), all wireline telephones manufactured or imported for use in the United States must provide an "internal means for effective use with hearing aids that are designed to be compatible with telephones which meet established technical standards for hearing aid compatibility." 47 U.S.C. 610(b), (b)(1)(B). In 1996, the Commission amended its regulations to require that wireline telephones also be equipped with volume control to allow improved acoustic coupling, finding that doing so would make telephones more accessible for those wearing hearing aids and others with hearing loss. The volume control rules adopted by the Commission (47 CFR 68.317) incorporate by reference two technical standards: ANSI/EIA-470-A-1987 (Telephone Instruments with Loop Signaling) for analog phones; and ANSI/EIA/TIA-579-1991 (Acoustic-To-Digital and Digital-To-Acoustic Transmission Requirements for ISDN Terminals) for digital

phones. In 2012 a revised technical standard for volume control, ANSI/TIA-4965-2012 (2012 ANSI Wireline Volume Control Standard), was approved by the American National Standards Institute (ANSI). The Telecommunications Industry Association (TIA) filed a petition requesting that the Commission revise § 68.317 of its rules to incorporate the revised standard by reference, and the Commission sought comment on TIA's petition for rulemaking.

2. TIA notes that the 2012 ANSI Wireline Volume Control Standard modifies in two ways the manner in which amplification is measured for wireline phones. First, the standard discontinues the use of an IEC-318 coupler, which must form a seal with the telephone handset, as the physical set-up for measuring the amplification of wireline phones. Instead, the standard specifies the Head and Torso Simulator (HATS) method, which uses a mannequin that includes a human pinna (outer ear) simulator and which TIA states is appropriate for all types of handsets. Second, the 2012 ANSI Wireline Volume Control Standard replaces the Receive Objective Loudness Rating (ROLR) method of calibrating amplification, used in previous standards, with a new method called Conversational Gain. Under the ROLR method, gain is determined relative to the normal unamplified, or nominal, sound level for the particular equipment that is being measured, which can vary depending upon the equipment being used. By contrast, TIA explains, under the Conversational Gain method, the starting point – 0 decibels (dB) Conversational Gain – is an absolute, not a relative, value, equivalent to 64 dB sound pressure level in each ear, which is the volume of a face-to-face conversation where participants are 1 meter apart.

3. The Commission proposes to amend 47 CFR 68.317 to incorporate the 2012 ANSI Wireline Volume Control Standard and believes that doing so will make its rules more effective in ensuring that people with hearing loss have “equal access to the national telecommunications network” (Pub. L. 100-394, sec. 2 (1)) and that telephones provide “an internal means for effective use with hearing aids” (47 U.S.C. 610(b)). To ensure that its rules incorporate the most recent Congressional statement of purpose regarding HAC, the Commission also proposes to amend the statement of purpose in 47 CFR 68.1 to replace the previous statement of purpose,

which was derived from the language of the 1982 amendment to the Communications Act, with the more recent language of Pub. L. 100-394.

4. Based on the TIA petition and the comments filed in response, the Commission's proposal to incorporate the 2012 ANSI Wireline Volume Control Standard into its rules is likely to make ordinary telephones more usable for consumers who need telephone amplification. As noted by the American Speech-Language Hearing Association (ASHA) and TIA, the new standard's HATS method for testing equipment appears to be "more representative of the user experience" because it reflects the actual manner in which phones are held to the ear, and the new measurement criterion, Conversational Gain, appears to provide "a more realistic metric for measuring speech through a phone" and has the potential to close a "loophole" in the current rule that appears to have resulted in a less than consistent means of measuring speech amplification across manufacturers. The Commission seeks comment on these assumptions and generally on the extent to which the new approaches embodied in the standard will improve the usability of telephones by consumers with hearing loss. In addition, the Commission seeks comment on whether incorporating the 2012 ANSI Wireline Volume Control Standard into its rules will improve the ability of the segment of the population that has hearing loss to communicate effectively with emergency services.

5. TIA research confirms that some vendors of high amplification phones have made claims about the amount of amplification offered that could not be verified when tested against the industry standard. The new ANSI/TIA standard's Conversational Gain method seems to address this problem because, according to ASHA, it will "allow consumers with hearing loss (and audiologists assisting them) to readily compare the sound levels of various digital and hardwire phones to determine which devices best meet their amplification needs." The Commission notes that in addition to the 2012 ANSI Wireline Volume Control Standard, TIA has developed another voluntary standard employing Conversational Gain, ANSI/TIA-4953, which specifies measurement procedures and performance requirements for specialty high gain telephones. ANSI/TIA-4953 also addresses tone control, acoustic ringer level and tone, noise,

distortion, stability, transmit levels, send quality, and volume for such high gain equipment and provides standardized labels to designate an amplified telephone as suitable for consumers with specified levels of hearing loss (HL), as follows: “Mild” (20 dB to 40 dB HL); “Moderate” (40 dB to 70 dB HL); and “Severe” (70 dB to 90 dB HL). The Commission seeks comment on the experience of industry and consumers with implementation of the HATS method and the Conversational Gain method for this purpose and others, and whether Commission incorporation of the new ANSI/TIA wireline volume control standard in its rules will lead to further improvement of a consumer’s ability to find devices that meet his or her communication needs, and in particular, a consumer’s ability to determine the need for high amplification telephones. The Commission also seeks information concerning the findings of any consumer tests or trials that may have been conducted to determine whether devices having the same conversational gain rating demonstrate comparable amplification as perceived by device users.

6. In addition, the Commission seeks comment on whether the standard promotes both market certainty and a level playing field for companies that manufacture terminal equipment and whether compliance with the standard poses any impediments for equipment that is marketed internationally. Pursuant to 47 U.S.C. 610(e), the Commission also seeks comment on the costs and benefits of the proposed rule amendment to persons with and without hearing loss. In particular, the Commission seeks comment on the likely impact of implementing the new standard on the cost of a telephone and whether incorporation of the new standard will encourage the use of currently available technology and will not discourage or impair the development of improved technology.

7. The Commission proposes to require a minimum of 18 dB in amplification gain because, according to TIA, under the 2012 ANSI Wireline Volume Control Standard, 18 dB of Conversational Gain would be equivalent to the current measurement of 12 dB above the normal unamplified level of a traditional telephone. Similarly, because under the new standard 24 dB of gain is the equivalent of a current measurement of 18 dB of gain, TIA recommends revising 47 CFR part 68 to require an automatic reset if Conversational Gain is greater than 24 dB, rather

than the gain of 18 dB that currently triggers a reset requirement. The Commission seeks comment on these proposed rule changes and specifically, whether these proposed rules will provide an appropriate degree of assurance that people with hearing loss can make effective use of telephones and that consumers generally will be protected from accidental injury due to increased volume settings. The Commission seeks comment generally on what other changes to the Commission's rules may be necessary or appropriate if the Commission incorporates the 2012 ANSI Wireline Volume Control Standard into § 68.317 of its rules.

8. The Commission proposes to allow a transition period of two years after the effective date of the rules for manufacturers to come into compliance. The Commission seeks comment on this proposal and on whether two years is necessary to allow sufficient time for the design, engineering, and marketing needs of manufacturers that will be subject to the new standard. The Commission also proposes to amend 47 CFR 68.112 to allow the existing inventory and installed base of telephones that comply with the current version of § 68.317 of its rules to remain in place until retired and to clarify that such phones need not be replaced in the future as a result of minor changes to 47 CFR 68.316 or 68.317, and seeks comment on these proposals.

9. Consistent with the intent of the CVAA to involve consumer representatives more directly in the standards development process, the Commission proposes to adopt a requirement that wireline telephone manufacturers engage in consultation with such consumers and their representative organizations for the purpose of assessing the effectiveness of the revised standard. The Commission proposes that an initial consultation should occur one year after the effective date of the revised standard, with follow-up every three years thereafter to assess the impact of technological changes. The Commission seeks comment on this proposal and whether the Commission should define in more detail the specifics of the required consultation. For example, should this consultation be subject to the same parameters that the Commission proposes pursuant to 47 U.S.C. 610(c) regarding consultation with designated consumer representatives? The Commission also seeks comment on whether, as an alternative, the Commission should consult

with the consumer stakeholder(s) to be designated pursuant to 47 U.S.C. 610(c) regarding the effectiveness of the revised standard.

10. The Commission proposes that manufacturers subject to the volume control rule be required to test a sample of products claiming to be compliant with the revised standard, to assess whether these products are providing a uniform and appropriate range of volume to meet the telephone needs of people with hearing loss. The Commission seeks comment on whether these or other steps could provide useful data to ensure effective communication by this population and on the costs of such testing. The Commission agrees with consumer commenters that, to the extent that measurements are referred to in marketing materials and user manuals, it would be helpful to consumers for the materials to explain, for example, that “1 meter apart” is equivalent to “approximately 1 yard” in describing how the standard utilizes a conversation between individuals as a benchmark. The Commission seeks comment on whether manufacturers currently reference such measurements in marketing and informational materials, and if so, whether the Commission has the authority to require conversion to non-metric equivalents and whether the Commission should do so. What are the costs and benefits associated with such a requirement?

Application of Inductive Coupling and Volume Control Requirements to Wireline VoIP

Telephones

11. The CVAA amended section 710(b) of the Act to provide that the requirement for “customer premises equipment” to “provide internal means for effective use with hearing aids” applies not only to “telephones” used over the public switched telephone network (PSTN) but also to “[a]ll customer premises equipment used with advanced communications services that is designed to provide 2-way voice communication via a built-in speaker intended to be held to the ear in a manner functionally equivalent to a telephone, subject to the regulations prescribed by the Commission under subsection (e).” 47 U.S.C. 610(b)(1)(C). The Act, as amended by the CVAA, defines “advanced communications services” (ACS) as including interconnected and non-interconnected Voice over Internet Protocol (VoIP) service. 47 U.S.C. 153(1). According to

recent market research, the United States has almost 35.3 million fixed VoIP subscribers, and the number of subscribers is expected to grow at an annual rate of 11.6 percent. The CVAA mandates that people with hearing loss have access to this expanding market of VoIP phones. Pub. L. 111-260, sec. 716(a).

12. Accordingly, the Commission proposes to amend 47 CFR part 68 so that customer premises equipment (CPE) used with interconnected and/or non-interconnected VoIP services (other than secure telephones and mobile handsets used with such services) would be covered by 47 U.S.C. 610(b)(1)(C) if the CPE “is designed to provide 2-way voice communication via a built-in speaker intended to be held to the ear in a manner functionally equivalent to a telephone.” The Commission further proposes that CPE covered by 47 U.S.C. 610(b)(1)(C) be subject to the existing inductive coupling and volume control requirements. 47 CFR 68.4, 68.6. The Commission also proposes that complaint procedures, labeling, and certification requirements shall be applicable to such equipment with respect to HAC compliance, in accordance with the relevant part 68 rules regarding complaint handling, labeling, certifications, and suppliers’ declarations of conformity. See, e.g., 47 CFR 68.160-62, 68.201, 68.218-24, 68.300, 68.320-54, 68.414-23. The Commission believes that applying these procedures and requirements to CPE used with VoIP service will promote accountability and compliance with the HAC requirements and thus better serve people with hearing loss.

13. The Commission seeks comment on this proposal, including the costs and benefits and technical impacts of covering customer premises equipment used with a VoIP service under the inductive coupling and volume control requirements of 47 CFR part 68. In particular, the Commission seeks comment on:

- The appropriate timetables or benchmarks that may be necessary for ensuring that such equipment is hearing aid compatible and provides volume control in accordance with part 68 standards in order to take account of technical

feasibility or to ensure the marketability or availability of new technologies to users (see 47 U.S.C. 610(e));

- Whether volume control parameters for such equipment can be effectively measured under the 2012 ANSI Wireline Volume Control Standard, and if not, how such standard should be modified to permit effective measurement;
- whether inductive coupling compliance for such telephones can be effectively measured under the currently applicable inductive coupling standard (47 CFR 68.316), and if not, how such standard should be modified to permit effective measurement;
- whether any different treatment of VoIP CPE is appropriate under the part 68 rules addressing complaint handling, labeling, certifications, and suppliers' declarations of conformity; and
- whether it would be appropriate to require registration of VoIP CPE in a public database, such as the database of terminal equipment that the Administrative Council for Terminal Attachments (ACTA) administers (see 47 CFR 68.610).

Volume Control and Other Acoustic Coupling Issues for Wireless Handsets

14. While the Commission's HAC requirements for wireless handsets (47 CFR 20.19) currently address inductive coupling capability and the prevention of radio frequency (RF) interference with hearing aids, they do not require the provision of volume control in wireless handsets. The Commission adopted volume control requirements for wireline telephones in 1996, but to date it has not adopted such requirements for wireless handsets. The Commission proposes to adopt a rule requiring wireless handsets to have a specified level of volume control. The Commission further proposes that the volume control rule have the same scope of application as our radio frequency interference reduction and inductive coupling rules for wireless handsets. 47

CFR 20.19(c), (d). The Commission also seeks comment on whether a volume control rule should apply to all wireless handsets or to just a subset of such handsets.

15. In addition, the Commission seeks further comment on volume control and acoustic coupling issues on which the Wireless Telecommunications Bureau (WTB) sought comment in 2010 and 2012, including (1) whether volume control rules and standards are necessary to ensure that wireless phones will operate at appropriate volumes to achieve acoustic coupling compatibility, (2) whether there is a need for Commission action to ensure adequate information is available to consumers and hearing aid manufacturers regarding wireless phones' volume settings and sound quality, (3) whether the Commission should take action to ensure that the magnetic fields emitted by wireless handsets are of sufficient strength to activate special acoustic coupling modes in hearing aids that are designed for telephone use, and (4) the relevance and benefits of TIA's new and revised standards relating to volume control for wireline phones (including digital cordless phones) in the wireless context. See Comment Sought on 2010 Review of Hearing Aid Compatibility Regulations, published at 76 FR 2625, 2629-30, January 14, 2011; Updated Information and Comment Sought on Review of Hearing Aid Compatibility Regulations, published at 77 FR 70407, 70408, November 26, 2012. The Commission notes that the original reason given by the Commission in 2010 for deferring action on volume control and acoustic coupling issues – i.e., that an Alliance for Telecommunications Industry Solutions working group was studying this issue – is no longer applicable, given that this group is no longer actively working on this issue.

16. Surveys conducted by the Hearing Loss Association of America (HLAA) indicate that the available volume controls for wireless handsets do not consistently allow sufficient amplification to enable effective acoustic coupling between the handset and a user's hearing aid or cochlear implant. The Commission invites additional comment on the experiences that consumers with hearing loss are having when they attempt to locate wireless handsets with sufficient amplification capability to use with their hearing aids or cochlear implants. In general, the Commission invites parties to update the record of these proceedings with respect to the need

for volume control requirements for wireless handsets, including information on facts or circumstances that have changed since the Commission last addressed this issue. What are the costs and benefits of adopting a volume control requirement for wireless handsets – for manufacturers, service providers, and consumers? If there are specific burdens associated with requiring handsets to achieve a specified amplification level for manufacturers and service providers, what are they? If a volume control requirement is adopted, should it apply to all wireless handsets or to a subset of total handset sales or models, as with the current HAC rule? Would such a fragmented implementation approach cause confusion for consumers?

17. Are there currently any plans for ANSI ASC C63[®]-EMC to initiate or explore development of such a standard, and if so, what is the likely timeline for the completion of such a standard? Further, in light of the suggestions that hearing aid manufacturers need to participate more fully in addressing HAC issues, would ANSI ASC C63[®]-EMC be the appropriate forum for the development of a volume control standard, or should all stakeholders form a new working group to address this issue? The Commission invites additional comment on other relevant standards development activities that may be useful in establishing volume control requirements for wireless handsets. Given the absence of a readily available ANSI standard for volume control in wireless handsets, the Commission invites parties to submit other studies and information that may be relevant to the adoption of appropriate standards for volume control in these devices. The Commission seeks comment on the time needed for development and adoption of a volume control standard for wireless handsets. Would 18 months be sufficient for development and adoption of such a standard? If no standards development body begins work on a wireless handset volume control standard, or if no specific time frame for development and adoption of such a standard is specified, the Commission also seeks comment on whether the Commission should adopt a volume control standard for wireless handsets based on the best currently available information, subject to modification based on subsequent development of an ANSI standard, in order to ensure equal telephone access for people with hearing loss. The Commission invites additional comment on the extent to which the 2012 ANSI Wireline Volume Control Standard is

adaptable to wireless and the nature of any differences between wireline and wireless handsets that affect the applicability of TIA's new methods and/or its standard. The Commission invites comment on the potential relevance and benefits of the new TIA procedures and metrics in the wireless context, despite such differences.

18. The Commission also invites comment on the types of information consumers need regarding amplification levels and acoustic coupling capabilities in order to make informed purchasing decisions. For example, the voluntary performance standard for wireline telephones with enhanced amplification, ANSI/TIA-4953, provides for specific, easily understood labels for amplified telephones that are suitable for consumers with mild, moderate, and severe hearing loss, respectively. Would such labels be useful in the wireless context as well? Should the Commission encourage or require the use of such labels for wireless handsets, and by what means? The Commission also seeks comment on whether to address, via standards or through other means, factors other than amplification that affect the ability of consumers with hearing loss to hear and understand speech received over wireless handsets, including but not limited to acoustic coupling issues such as frequency response and distortion and magnetic field strength issues.

Testing and Rating Wireless Handsets Exclusively Under the 2011 ANSI Wireless HAC Standard

19. For testing and rating the HAC performance of wireless handsets, the Commission's rules currently reference the 2007 and 2011 revisions of ANSI technical standard ANSI C63.19 (the 2007 ANSI Wireless HAC Standard and the 2011 ANSI Wireless HAC Standard), developed by ANSI ASC C63[®]-EMC. 47 CFR 20.19(b)(1), (2). A handset is considered hearing aid compatible for preventing RF interference with hearing aids and cochlear implants if it meets a rating of at least M3 under the 2007 ANSI Wireless HAC Standard or 2011 ANSI Wireless HAC Standard. A handset is considered hearing aid compatible for inductive coupling with hearing aids and cochlear implants if it meets a rating of at least T3. The 2011 Wireless HAC Standard, added to the rule in 2012, expanded the range of frequencies over which HAC can be tested to frequencies between 698 MHz and 6 GHz and established a direct method for measuring the RF

interference level of wireless devices to hearing aids, thereby enabling testing procedures to be applied to operations over any RF air interface or protocol.

20. The Commission proposes to require manufacturers to use the 2011 ANSI Wireless HAC Standard, subject to modifications, exclusively to certify future handsets as compliant with the RF interference reduction and inductive coupling rules. The 2011 ANSI Wireless HAC Standard is the most recent of the ANSI standards for testing and rating wireless handsets' HAC and provides the most accurate available RF interference reduction and inductive coupling ratings for such handsets. The Commission believes there will be relatively little burden in requiring manufacturers and service providers to use the 2011 ANSI Wireless HAC Standard exclusively, and the Commission notes that since July 2013, manufacturers appear to have been using the 2011 ANSI Wireless HAC Standard to test the vast majority of their new handsets. The Commission seeks comment on this approach. The Commission asks commenters to include data or other specific information demonstrating whether and how the 2011 ANSI Wireless HAC Standard imposes lesser or greater burdens than the 2007 ANSI Wireless HAC Standard, as well as the advantages or disadvantages of using the 2011 ANSI Wireless HAC Standard exclusively for testing and rating wireless handsets' compliance with the RF interference reduction and inductive coupling rules.

21. The Commission further proposes to transition manufacturers and service providers, over a period of six months, to using the 2011 ANSI Wireless HAC Standard on an exclusive basis. The Commission seeks comment on whether sufficient time has passed since Commission adoption of this standard to enable it to be used on an exclusive basis, or whether additional transition time is necessary to avoid disruption. If more time is needed, what would be the appropriate timeframe to adopt the 2011 ANSI Wireless HAC Standard exclusively? In connection with this implementation timeline, the Commission proposes that handsets already certified under the 2007 ANSI Wireless HAC Standard or any previous standard would be grandfathered, and thus, there would be no need to retest or recertify this equipment. The

Commission seeks comment on this proposal, its costs and benefits, and its advantages or disadvantages.

Power-Down Exception for GSM Operations at 1900 MHz

22. The wireless HAC rule provides an exception to the general requirement that, for purposes of determining HAC, handsets must be tested using their maximum output power. 47 CFR 20.19(e)(1)(ii). This limited power-down exception applies solely to manufacturers and service providers that offer only one or two Global System for Mobile Communications (GSM) handset models, but are required, because they employ a certain number of individuals, to meet the HAC standards for one model. The Commission proposes to eliminate the power-down exception for handsets certified on or after the date that the 2011 ANSI Wireless HAC Standard becomes the exclusive standard. The Commission requires handsets to be tested at full power to ensure that Americans with hearing loss have equal access to all of the service quality and performance that a given wireless handset provides. 47 CFR 20.19(e)(1)(iii). The Commission believes that eliminating the power-down exception will advance this purpose and will ensure that consumers do not experience the drop-off in function that can otherwise occur with handsets certified under the power-down option. The Commission further proposes to grandfather GSM handsets that operate in the 1900 MHz band and that were previously certified under the exception. Even if the Commission eliminates the exception going forward, the Commission tentatively concludes that there will be no need to recertify these handsets and that the Commission should continue to treat them as certified hearing aid compatible handsets. The Commission seeks comment on this tentative conclusion. When addressing our proposal to eliminate the power-down exception, commenters should discuss the advantages or disadvantages and quantify the costs and benefits of eliminating the exception and of any proposed alternative approaches they recommend.

Use of Future ANSI Technical Standards

23. Section 710(c) of the Act requires the Commission “to establish or approve such technical standards as are required to enforce [the HAC provisions].” 47 USC 610(c). The

CVAA retained the mandate for the Commission to establish or approve such technical standards but amended section 710(c) of the Act to provide a mechanism for HAC technical standards to become effective without a Commission rulemaking, subject to Commission approval or rejection of such standards. As amended by the CVAA, section 710(c) of the Act reads as follows:

The Commission shall establish or approve such technical standards as are required to enforce this section. A telephone or other customer premises equipment that is compliant with relevant technical standards developed through a public participation process and in consultation with interested consumer stakeholders (designated by the Commission for the purposes of this section) will be considered hearing aid compatible for purposes of this section, until such time as the Commission may determine otherwise. The Commission shall consult with the public, including people with hearing loss, in establishing or approving such technical standards. The Commission may delegate this authority to an employee pursuant to section 155(c) of this title. The Commission shall remain the final arbiter as to whether the standards meet the requirements of this section.

24. The Commission proposes to adopt rules implementing each of the provisions of section 710(c) of the Act added by the CVAA. In particular, the Commission proposes to adopt a streamlined procedure whereby a wireline telephone or other customer premises equipment or a wireless handset may be considered hearing aid compatible if it “is compliant with relevant technical standards developed through a public participation process and in consultation with interested consumer stakeholders . . . until such time as the Commission may determine otherwise.” The Commission further proposes changes to our rules to ensure consultation “with the public, including people with hearing loss, in establishing or approving such technical

standards,” and that the Commission “remain[s] the final arbiter as to whether the standards meet the requirements of this section.” The Commission invites comment generally on whether our proposals below are consistent with section 710 of the Act and whether they will effectively advance the Congressional objective to ensure that “to the fullest extent made possible by technology and medical science, [people who are deaf and hard of hearing] should have equal access to the national telecommunications network.” Pub. L. 100-394, sec. 2(1).

25. To implement section 710(c) of the Act, the Commission proposes that for compliance purposes, companies be permitted to rely on a HAC standard prior to that standard being adopted through a formal rulemaking process so long as it is developed through a voluntary and consensus-driven public participation process reflecting consultation with interested consumer stakeholders. The Commission notes, however, that it may also, in its discretion, establish or approve HAC standards through traditional rulemaking procedures, including, where appropriate, standards for mobile handsets through existing delegations of rulemaking authority under 47 CFR 20.19(k), independently of the alternative process added by the CVAA. More specifically, the Commission proposes that the standards development process must (1) be open to participation by all relevant stakeholders who have legitimate and meaningful interests in the process, (2) allow all interested parties, including consumers and groups representing them, to comment on a proposed standard prior to adoption and to have their comments considered by the working groups that develop the standards, and (3) provide an appeal mechanism that allows interested parties to seek review of standards-setting decisions.

26. The Commission believes that the current ANSI process meets such criteria. Accordingly, the Commission proposes that a wireline telephone or other CPE or a wireless handset will be considered hearing aid compatible for purposes of section 710 of the Act, if it complies with a relevant technical standard adopted by ANSI using a process compliant with the requirements of section 710(c) of the Act, and further proposes that this include standards that cover equipment, services, or frequency bands not presently covered by the existing ANSI standards. The Commission seeks comment on whether it would be in the public interest for

parties to be permitted to rely on technical standards developed under the ANSI process for purposes of assessing their equipment's compliance with our HAC rules. The Commission also seeks comment on whether and how the ANSI standards development process can achieve Congress's objective to ensure that the views of the public, including people with hearing loss, are considered in the establishment and approval of HAC technical standards. The Commission seeks comment on the extent to which this process is appropriate for consumer groups representing the interests of people with hearing loss to provide input into the development of HAC standards. Before a new standard is adopted, according to ANSI documents, all interested parties have a chance to comment on the revision and to have their comments considered by the working group. Will this process afford such individuals the opportunity to comment on proposed new or revised standards prior to their adoption even if such individuals are not ANSI members? Have consumer groups or individuals representing hearing loss interests participated in such standards-setting efforts in the past, and if so, what has been their experience with this process? What would be the most effective role for consumer groups and individual consumers in the process of setting standards for HAC that are based on complex engineering issues? The process also includes an appeal mechanism. Does ANSI's appeal mechanism adequately protect consumer interests? To what extent do interested parties believe that the ANSI process will be capable of ensuring that revisions to HAC technical standards will meet the needs of all interested stakeholders? The Commission also invites comment on whether there are other relevant standards development organizations following processes that could meet the requirements of section 710(c) of the Act. Commenters who recommend that the Commission recognize a particular alternative standards development organization or process should explain why such an organization or process qualifies as a "public participation process" for purposes of section 710(c) of the Act and why it is an appropriate process for development of a standard for assessing HAC compliance.

27. Section 710(c) of the Act further requires that standards be developed in consultation with "interested consumer stakeholders" who are "designated by the Commission." The

Commission proposes to direct the Commission's newly formed Disability Advisory Committee (DAC) to provide recommendations on who should be designated as "interested consumer stakeholders" for purposes of section 710(c) of the Act and further proposes that the Consumer and Governmental Affairs Bureau (CGB) consider such recommendations in making these final designations. Additionally, the Commission proposes that the DAC be directed to consult with nationally recognized consumer organizations, both appointed to and outside of the DAC, that have expertise on HAC and related telecommunications issues. Further, the Commission proposes that, to qualify for designation as "interested consumer stakeholders," individuals or organizations should have technical expertise in the field of hearing loss and a high level of knowledge about the communication needs of people who are deaf and hard of hearing. The Commission seeks comment on these proposed criteria and any other applicable criteria for designation of consumer stakeholders. Finally, the Commission proposes that each consumer representative or organization receiving a designation as an "interested consumer stakeholder" maintain such designation for a period of two years, with the process described above being repeated at the end of each two-year period. The Commission believes that taking this approach will provide the expertise and stability needed for effective participation in the standards-setting process. The Commission seeks comment on these proposals, as well as how many consumer stakeholders to designate.

28. The Commission proposes to define "in consultation with interested consumer stakeholders" as signifying a process in which consumer stakeholders designated by the Commission are allowed to participate from the start and throughout the standards development process. The Commission further proposes that when there is adherence to this process, the resulting standards may become effective for compliance purposes in an accelerated manner pursuant to section 710(c) of the Act as amended by the CVAA. The Commission seeks comment on this proposal, and whether designated consumer stakeholders should also be invited to serve as voting members of relevant standards development committees such as TIA's TR-41 committee and ANSI ASC C63[®]-EMC. Would such voting membership be consistent with

existing committee procedures, or would changes in committee procedures or by-laws be needed to accommodate it? Further, regarding possible steps to secure effective participation, the Commission seeks comment on whether, in order to qualify as a consumer consultation process under section 710(c) of the Act, organization membership fees that may ordinarily be required for participation in the ANSI standards setting process should be waived for Commission-designated consumer stakeholders operating under a tax-exempt, non-profit status, and whether reasonable accommodations, such as sign language interpreters and communication access real-time translation (CART), should be provided for the attendance and participation of such designees during committee deliberations, at no cost to individuals needing such accommodations. The Commission seeks comment on these proposals, their costs and benefits, and their advantages or disadvantages in advancing the purposes of section 710 of the Act. Commenters who believe that other types of processes would be more appropriate and sufficient to ensure effective public participation and “consultation with interested consumer stakeholders” as required by section 710(c) of the Act are asked to provide detailed proposals for how such alternatives would achieve the desired objectives.

29. The Commission emphasizes that section 710(c) of the Act, as amended, does not mandate that any standards-setting organization change its procedures to provide for consultation with interested consumer stakeholders designated by the Commission. In the event that a standards-setting organization were to conclude that consultation with consumer stakeholders, as defined by the rules adopted in this proceeding, is not practicable or is inconsistent with the needs of the organization, the only legal consequence would be that, as is currently the case, standards developed by that organization would need to be formally adopted in a Commission rulemaking before they could be relied upon for hearing aid compatibility compliance purposes.

Alternatively, a standard could be developed by another organization through a process that complies with section 710(c) of the Act and the Commission’s implementing rules. The Commission invites comment on whether, in the event that ANSI chooses not to incorporate a consumer consultation process into its standards-setting procedures, the Commission should

recognize another organization for purposes of section 710(c) of the Act, and invites commenters supporting recognition of another standards-setting body to propose other bodies for consideration.

30. In order to fully implement section 710(c) of the Act, as amended, it appears necessary to provide for Commission review of HAC standards after they have been developed, while allowing industry to rely on such standards for HAC compliance purposes “until such time as the Commission may determine otherwise.” The Commission proposes that, upon publication by ANSI of a new or revised HAC standard, the relevant Bureaus and Offices shall issue a public notice describing such standard, specifying the effective date set by ANSI and the equipment and services to which the standard applies, and indicating where the standard and related information can be obtained. The Commission proposes that in such public notice, the relevant Bureaus and Offices shall initiate a review of the standard by seeking public comment on (1) whether the public participation and consumer consultation processes specified by section 710(c) of the Act and by the rules adopted in this proceeding were followed in developing the new or revised standard, and (2) whether the use of the standard to determine whether wireline telephones, other customer premises equipment, or wireless handsets are hearing aid compatible meets the substantive requirements of section 710 of the Act. The Commission seeks comment on this proposal generally, its costs and benefits, and the following matters in particular.

31. The Commission invites comment on whether ANSI should be permitted to seek Commission review of a draft standard that has been approved by a subcommittee before it is formally approved by the parent committee, or before it is adopted through a public review process. Would the benefit of earlier Commission approval that could be gained by initiating review at an intermediate stage justify the potential for administrative waste if a draft standard is subsequently revised prior to its final adoption by the standards-setting organization? What other advantages or disadvantages are there for allowing such intermediate review?

32. The Commission proposes that the Commission’s review be conducted by the relevant Bureau - CGB in the case of wireline standards and WTB in the case of wireless

standards - in conjunction with the Office of Engineering and Technology (OET), and that such review be completed, and a determination issued by the relevant bureau approving or disapproving such standards, no later than 180 days after the review period begins. The Commission seeks comment on whether this timetable will be sufficient to ensure that the Commission addresses its responsibilities under section 710(c) of the Act. The Commission also seeks comment on what consequences should ensue in the event that the timetable is not met. Should the standard be deemed approved? Or should the proceeding remain open, so that a decision approving or disapproving the standard could still be made based on the record compiled, despite the expiration of the timetable? The Commission invites commenters to suggest alternative processes, such as, for Commercial Mobile Radio Service (CMRS) handsets, modification of the existing delegations of authority under § 20.19(k) of its rules, that they believe will more effectively or appropriately address the Commission's section 710(c) of the Act responsibilities.

33. The Commission seeks comment on the necessity of, and the appropriate procedure for, amending the Commission's rules to reflect Commission approval of a standard developed by ANSI in accordance with the manner described above. The Commission proposes that, where a technical standard has been approved for HAC compliance purposes pursuant to the Commission review process described above, such approval shall be codified in the Commission's rules. The Commission seeks comment on this proposal. The Commission also seeks comment on the appropriate procedure for phasing out reliance on a standard when it has been superseded by a revised version, i.e., whether and how to terminate industry's ability to rely on a superseded standard.

34. The Commission seeks comment on whether the various processes set forth above for implementation of section 710(c) of the Act are consistent with section 559 of the Administrative Procedure Act (APA), which states that a "[s]ubsequent statute may not be held to supersede or modify [the APA] . . . except to the extent that it does so expressly." 5 U.S.C. 559. The District of Columbia Circuit has held that a statute may be found to authorize an administrative agency to

adopt rules outside of an APA procedure if “Congress has established procedures so clearly different from those required by the APA that it must have intended to displace the norm.”

Asiana Airlines v. FAA, 134 F.3d 393, 397 (D.C. Cir. 1998). Specifically, the Commission seeks comment on the extent to which commenters believe that any components of the above processes differ from processes required by the APA, and whether § 710(c) of the Act nevertheless authorizes the Commission to implement such processes.

INCORPORATION BY REFERENCE

35. The Office of Federal Register (OFR) recently revised the regulations to require that agencies must discuss in the preamble of a proposed rule ways that the materials the agency proposes to incorporate by reference are reasonably available to interested parties or how it worked to make those materials reasonably available to interested parties. In addition, the preamble of the proposed rule must summarize the material. 1 CFR 51.5(a). In accordance with OFR's requirements, the discussion in this section summarizes the 2012 ANSI Wireline Volume Control Standard. The following document is available from the American National Standards Institute (ANSI), Sales Department, 11 West 42nd Street, 13th Floor, New York, NY 10036, (212) 642-4900, or at http://global.ihs.com/search_res.cfm?RID=TIA&INPUT_DOC_NUMBER=ANSI/TIA-4965: “ANSI/TIA-4965-2012, Receive Volume Control Requirements for Digital and Analog Wireline Terminals.” This standard modifies in two ways the manner in which amplification is measured for wireline phones. First, the standard discontinues the use of an IEC-318 coupler and specifies instead the Head and Torso Simulator (HATS) method. Second, the standard replaces the Receive Objective Loudness Rating (ROLR) method of calibrating amplification with a new method called Conversational Gain.

INITIAL REGULATORY FLEXIBILITY ACT ANALYSIS

36. As required by the Regulatory Flexibility Act, the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in document FCC 15-144. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the applicable deadline for comments as indicated in the DATES section. The Commission will send a copy of document FCC 15-144, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA). See 5 U.S.C. 603(a).

Need For, and Objectives of, the Proposed Rules

37. The Commission proposes to amend the HAC rules with the goal of ensuring that Americans with hearing loss are able to access wireline and wireless communications services through a wide array of phones, including VoIP telephones.

38. Regarding wireline equipment, the Commission seeks comment on a Commission proposal to incorporate into the rules a revised industry volume control standard – ANSI/TIA-4965-2012 (2012 ANSI Wireline Volume Control Standard) – that appears likely to improve the ability of people with hearing loss to select wireline telephones with sufficient volume control to meet their communication needs and provide greater regulatory certainty for the industry. The revised standard modifies the physical set-up for measuring amplification for wireline phones, by discontinuing the use of an IEC-318 coupler, which must form a seal with the telephone handset, and specifying instead the HATS method, which uses a mannequin with a human pinna (outer ear) simulator. In addition, the new standard replaces the ROLR method of calibrating amplification with a new method called Conversational Gain. According to TIA, the new standard will provide a more consistent experience of amplified gain level, enabling consumers with hearing loss to better assess and compare the merits of various models of terminal equipment. The Commission believes that incorporating the 2012 ANSI Wireline Volume Control Standard into the wireline volume control rule will make the rule more effective in

ensuring that people with hearing loss have “equal access to the national telecommunications network” (Pub. L. 100-394, sec. 2(1)) and that telephones provide “an internal means for effective use with hearing aids” (47 U.S.C. 610(b)).

39. The Commission also proposes to apply the Commission’s wireline telephone volume control and other HAC requirements to handsets used with VoIP services. See 47 CFR 68.4, 68.6. This proposal implements the CVAA (Pub. L. 111-260; Pub. L. 111-265), which provides that the HAC requirements of the Act apply to all customer premises equipment used with advanced communications services, including VoIP services. The Commission seeks comment on the costs, benefits, and technical impacts of applying the rules to VoIP equipment, whether volume control and inductive coupling parameters for such equipment can be effectively measured under the 2012 ANSI Wireline Volume Control Standard and the currently applicable inductive coupling standard (47 CFR 68.316, 68.317), the appropriate timetables or benchmarks that may be necessary to take account of technical feasibility or to ensure the marketability or availability of new technologies to users, whether any different treatment of VoIP CPE is appropriate under the part 68 rules addressing complaint handling, labeling, certifications, and suppliers’ declarations of conformity, and whether it would be appropriate to require registration of VoIP CPE in a public database, such as the database of terminal equipment that ACTA administers.

40. Regarding wireless equipment, the Commission seeks comment on a Commission proposal to adopt a volume control rule and standard for wireless handsets. In light of the greatly expanded role of wireless voice communications in our society, the Commission believes that adopting a specific volume control requirement for wireless handsets is necessary to achieve effective acoustic coupling and improve communication for people with hearing loss. The Commission seeks comment on the costs and benefits of adopting a volume control requirement for wireless handsets, what specific burdens, if any, are associated with requiring handsets to achieve a specified amplification level, and whether a volume control requirement should apply to all wireless handsets or to a subset of total handset sales or models, as with the current HAC

rule. Finally, the Commission seeks comment on the appropriate standard for volume control in wireless phones and on whether to address, via standards or through other means, factors other than amplification that affect the ability of consumers with hearing loss to hear and understand speech received over wireless handsets, such as frequency response and distortion and magnetic field strength issues.

41. In addition, the Commission seeks comment on its proposals to require manufacturers to use exclusively the 2011 ANSI Wireless HAC Standard for certifying future handsets as hearing aid compatible and to eliminate the power-down exception to the existing wireless HAC rule. 47 CFR 20.19(e)(1)(iii). Since July 2013, manufacturers appear to have been using the 2011 ANSI Wireless HAC Standard to test the vast majority of their new handsets. In order to facilitate meeting the 2007 version of the standard, certain handsets were allowed to be tested using less than maximum output power, but that exception appears to be unnecessary for purposes of meeting the 2011 standard.

42. Regarding all equipment subject to HAC requirements, the Commission seeks comment on a proposed streamlined process for allowing manufacturers and service providers to rely on a new or revised technical standard as sufficient for assessing compliance with relevant HAC requirements, without a prior Commission rulemaking, if the standard is developed by an ANSI-accredited standards development organization in accordance with an appropriate public participation process and in consultation with consumer stakeholders designated by the Commission, as required by the CVAA. Pub. L. 111-260, sec. 102(b); 47 U.S.C. 610(c). In particular, the Commission seeks comment on its proposals to recognize the ANSI process as a “public participation process” for purposes of 47 U.S.C. 610(c), to require that for a standard to qualify for accelerated incorporation into the HAC rule, consumer stakeholders designated by the Commission must be allowed to participate throughout the standards development process, and to provide for streamlined Commission post-effectiveness review of standards to ensure consistency with statutory requirements.

Legal Basis

43. The authority for this proposed rulemaking is contained in sections 4(i) and 710 of the Act. 47 U.S.C. 154(i), 610.

Description and Estimate of the Number of Small Entities Impacted

44. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules and policies, if adopted. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act. Pursuant to 5 U.S.C. 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.” A “small business concern” is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

45. Small Entities. The Commission’s actions, over time, may affect small entities that are not easily categorized at present. The Commission therefore describes here, at the outset, three comprehensive small entity size standards that encompass entities that could be directly affected by the proposals under consideration. As of 2009, small businesses represented 99.9% of the 27.5 million businesses in the United States, according to the SBA. Additionally, a “small organization” is generally any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. Nationwide, as of 2007, there were approximately 1,621,215 small organizations. Independent Sector, “The New Nonprofit Almanac and Desk Reference” (2010). Finally, the term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.” Census Bureau data for 2011 indicate that there were 90,056 local governmental jurisdictions in the United States. The Commission estimates that, of

this total, as many as 89,327 entities may qualify as “small governmental jurisdictions.” Thus, the Commission estimates that most local governmental jurisdictions are small.

46. Wireless Telecommunications Carriers (except satellite). This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services. The appropriate size standard under SBA rules is for the category Wireless Telecommunications Carriers (except satellite). For that category a business is small if it has 1,500 or fewer employees. For this category, census data for 2007 show that there were 1,383 firms that operated for the entire year. Of this total, 1,368 firms had employment of fewer than 1,000 employees. Thus, under this category and the associated small business size standard, the Commission estimates that the majority of wireless telecommunications carrier (except satellite) firms are small.

47. Satellite Telecommunications. According to the U.S. Census Bureau, the category of “Satellite Telecommunications” comprises firms “primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.” The category has a small business size standard of \$32.5 million or less in average annual receipts, under SBA rules. For this category, Census Bureau data for 2007 show that there were a total of 512 firms that operated for the entire year. Of this total, 482 firms had annual receipts of less than \$25 million. Consequently, the Commission estimates that the majority of satellite telecommunications providers are small entities that might be affected by its action.

48. All Other Telecommunications. “All Other Telecommunications” is defined by the U.S. Census Bureau as follows: “This U.S. industry comprises establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily

engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or VoIP services via client-supplied telecommunications connections are also included in this industry.”

The SBA has developed a small business size standard for All Other Telecommunications, which consists of all such firms with gross annual receipts of \$32.5 million or less. For this category, census data for 2007 show that there were 2,383 firms that operated for the entire year. Of those firms, a total of 2,346 had gross annual receipts of less than \$25 million. Thus, a majority of All Other Telecommunications firms potentially affected by the proposed rule can be considered small.

49. Telephone Apparatus Manufacturing. The Census Bureau defines this category to comprise “establishments primarily engaged in manufacturing wire telephone and data communications equipment.” The Census Bureau further states: “These products may be stand alone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, LAN modems, multi-user modems, and other data communications equipment, such as bridges, routers, and gateways.” In this category the SBA deems a telephone apparatus manufacturing business to be small if it has 1,000 or fewer employees. For this category of manufacturers, census data for 2007 showed that there were 398 such establishments that operated that year. Of those 398 establishments, 393 had fewer than 1,000 employees. Thus, under this size standard, the majority of establishments in this industry can be considered small.

50. Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. The Census Bureau defines this industry as comprising “establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by the establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile

communications equipment, and radio and television studio and broadcasting equipment.” The SBA has established a size standard for this industry that classifies any business in this industry as small if it has 750 or fewer employees. Census Bureau data for 2007 indicate that in that year 939 such businesses operated. Of that number, 912 businesses operated with less than 500 employees. Based on this data, the Commission concludes that a majority of businesses in this industry are small by the SBA standard.

51. Electronic Computer Manufacturing. According to the U.S. Census Bureau, this category “comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following: (1) store the processing program or programs and the data immediately necessary for the execution of the program; (2) can be freely programmed in accordance with the requirements of the user; (3) perform arithmetical computations specified by the user; and (4) execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run. Analog computers are capable of simulating mathematical models and contain at least analog, control, and programming elements. The manufacture of computers includes the assembly or integration of processors, coprocessors, memory, storage, and input/output devices into a user-programmable final product.” The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or fewer employees. According to Census Bureau data for 2007, there were 425 establishments in this category that operated that year. Of these, 419 had less 1,000 employees. Consequently, the Commission estimates that the majority of these establishments are small entities that may be affected by its action.

52. Computer Terminal Manufacturing. According to the U.S. Census Bureau, this category “comprises establishments primarily engaged in manufacturing computer terminals. Computer terminals are input/output devices that connect with a central computer for processing.” As of December 2, 2014, the category “Computer Terminal Manufacturing,” North

American Industry Classification System (NAICS) Code 334113, was superseded by a new NAICS Code classification, “Computer Terminal and Other Computer Peripheral Manufacturing,” NAICS Code 334118. However, since this rule making concerns only computer terminal manufacturing, only national data from the 2007 Census has been used to provide information about that industry. The SBA size standard, defining a firm within that industry as small if it has 1,000 or less employees, remained unchanged when NAICS Code 334113 was changed to NAICS Code 334118. The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or fewer employees. According to Census Bureau data for 2007, there were 43 establishments in this category that operated that year. Of this total, all 43 had less than 500 employees. Consequently, the Commission estimates that the majority of these establishments are small entities that may be affected by its action.

53. Software Publishers. According to the U.S. Census Bureau, this category “comprises establishments primarily engaged in computer software publishing or publishing and reproduction. This industry comprises establishments primarily engaged in computer software publishing or publishing and reproduction. Establishments in this industry carry out operations necessary for producing and distributing computer software, such as designing, providing documentation, assisting in installation, and providing support services to software purchasers. These establishments may design, develop, and publish, or publish only.” The SBA has developed a small business size standard for software publishers, which consists of all such firms with gross annual receipts of \$38.5 million or less. For this category, census data for 2007 show that there were 5,313 firms that operated for the entire year. Of those firms, a total of 4,956 had gross annual receipts less than \$25 million. Thus, a majority of software publishers potentially affected by the proposed rule can be considered small.

Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

54. Certain rule changes proposed, if adopted by the Commission, would modify rules or add requirements governing reporting, recordkeeping, and other compliance obligations.

55. If the Commission were to incorporate the 2012 ANSI Wireline Volume Control Standard into the wireline volume control rules and eliminate the currently applicable standard after a transition period, such action would alter the compliance obligations of wireline telephone apparatus manufacturers, including small entities, by requiring them to use a different method for testing and evaluating compliance with the volume control requirement.

56. If the Commission were to explicitly apply some or all of the Commission's wireline telephone volume control and other HAC rules, which include related labeling, certification, complaint processing, and registration requirements, to handsets used with VoIP services, such action would impose new compliance obligations and reporting and recordkeeping obligations on some wireline telephone apparatus manufacturers, electronic computer manufacturers, computer terminal manufacturers, and software publishers, including small entities.

57. If the Commission were to adopt a rule and standard for wireless handsets to address volume control and other acoustic coupling issues, such action would impose new compliance obligations and may impose additional reporting and recordkeeping obligations on wireless telecommunications carriers, satellite telecommunications providers, and wireless communications equipment manufacturers, including small entities.

58. If the Commission were to modify the 2011 ANSI Wireless HAC Standard to achieve more effective coupling between handsets and hearing aids or cochlear implants, such action would alter the compliance obligations of wireless telecommunications carriers, satellite telecommunications providers, and wireless communications equipment manufacturers, including small entities. However, such changes would not result in new regulatory burdens.

59. If the Commission were to require manufacturers to use exclusively the 2011 ANSI Wireless HAC Standard (with any modifications adopted in this rulemaking) to certify future handsets as hearing aid compatible and eliminate the power-down exception to the existing wireless HAC rule, such action would alter the compliance obligations of wireless telecommunications carriers, satellite telecommunications providers, and wireless

communications equipment manufacturers, including small entities. However, such changes would not result in new regulatory burdens.

60. If the Commission were to adopt a rule providing that, pursuant to section 710(c) of the Act, equipment may be considered to be in compliance with HAC rules if it complies with relevant ANSI technical standards, such action could affect the compliance obligations of wireless telecommunications carriers, satellite telecommunications providers, and wireless communications equipment manufacturers, including small entities.

Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered

61. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities. 5 U.S.C. 603(b).

62. Regarding the Commission's proposal to incorporate the 2012 ANSI Wireline Volume Control Standard into the wireline volume control rules, the Commission notes that 2012 ANSI Wireline Volume Control Standard is a performance standard, not a design standard, and therefore implements alternative (3) above. Further, to minimize the difficulty of adjusting to the revised standard, the Commission proposes to allow a phase-in period during which manufacturers may comply with either the existing standard or the 2012 ANSI Wireline Volume Control Standard. Finally, to limit any potential burdens regarding the impact of the proposed rule change and future rule changes on previously manufactured telephones, the Commission proposes to amend its rules to allow the existing inventory and installed base of telephones that comply with the existing volume control standard to remain in place until retired and to clarify that future minor changes to the HAC and volume control standards will not result in a

requirement to modify existing inventories or installed telephones. Each of these possible approaches, if adopted, could help minimize the impact of the revised standard on small entities. Further, if this revised standard more accurately measures the amplification achievable by wireline telephone products, incorporation of this standard could lighten regulatory burdens by increasing market certainty, promoting a level playing field, and reducing the number of complaints made to manufacturers by consumers of their products.

63. Regarding the Commission's proposal to amend 47 CFR part 68 to explicitly provide that customer premises equipment used with a VoIP service is subject to the wireline HAC and volume control requirements, the Commission notes that the standards provided in the rules are performance standards, not design standards. Further, the proposed rule amendment could increase regulatory certainty and market fairness regarding the application of the wireline HAC rules. In addition, the Commission seeks comment on the appropriate timetables or benchmarks that may be necessary in order to take account of technical feasibility or to ensure the marketability or availability of new technologies to users. Such timetables or benchmarks could help minimize the impact of the revised standard on small entities.

64. Regarding the Commission's proposals (1) to adopt a rule and standard for wireless handsets to address volume control, (2) to require manufacturers to use the 2011 ANSI Wireless HAC Standard exclusively and (3) to eliminate the power-down exception to the existing wireless HAC rule, the Commission notes that the 2011 ANSI Wireless HAC Standard is a performance standard, not a design standard. In addition, the existing HAC rule limits the number of models that must comply with the rule, especially for smaller carriers and manufacturers, and the Commission seeks comment on whether a volume control requirement, if adopted, should utilize the same approach, which could help minimize the impact on small entities.

65. Regarding the Commission's proposal to permit industry to rely on HAC standards developed pursuant to section 710(c) of the Act, in advance of a Commission rulemaking, such action would not result in new or increased regulatory burdens and may decrease regulatory burdens on small entities.

Federal Rules Which Duplicate, Overlap, or Conflict With, the Commission's Proposals

66. None.

List of Subjects in 47 CFR Parts 20 and 68

Incorporation by reference, Individuals with disabilities, Telecommunications, Telephones.

FEDERAL COMMUNICATIONS COMMISSION.

Gloria J. Miles,
Federal Register Liaison Officer.
Office of the Secretary.

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend title 47 of the Code Federal Regulations as follows:

PART 20—COMMERCIAL MOBILE SERVICES

1. The authority citation for part 20 continues to read as follows:

Authority: 47 U.S.C. 151, 152(a), 154(i), 157, 160, 201, 214, 222, 251(e), 301, 302, 303, 303(b), 303(r), 307, 307(a), 309, 309(j)(3), 316, 316(a), 332, 615, 615a, 615b, 615c.

2. Amend § 20.19 by:

- a. Revising paragraphs (b)(1) and (2) and (l) introductory text;
- b. Removing the word “and” at the end of paragraph (e)(1)(ii)(B) and removing the period at the end of paragraph (e)(1)(ii)(C) and adding “; and” in its place; and
- c. Adding paragraphs (e)(1)(iii)(D) and (k)(3).

The revisions and additions read as follows:

§20.19 Hearing aid-compatible mobile handsets.

(b) Hearing aid compatibility; technical standards--(1) For radio frequency interference and other aspects of acoustic coupling--(i) Radio frequency interference. A wireless handset submitted for equipment certification or for a permissive change relating to hearing aid compatibility must either comply with a standard meeting the requirements of paragraph (k)(3) of this section or meet, at a minimum, the M3 rating associated with the technical standard set forth in the standard document “American National Standard Methods of Measurement of Compatibility Between Wireless Communication Devices and Hearing Aids,” ANSI C63.19-2011. Any grants of certification issued before [SIX MONTHS AFTER THE EFFECTIVE DATE OF THE FINAL RULE], under previous versions of ANSI C63.19 remain valid for hearing aid compatibility purposes.

(ii) Volume control. A wireless handset submitted for equipment certification or for a permissive change relating to hearing aid compatibility must include volume control that is compliant with a

relevant technical standard established or approved by the Commission pursuant to 47 U.S.C. 710(c).

(2) For inductive coupling. A wireless handset submitted for equipment certification or for a permissive change relating to hearing aid compatibility must either comply with a standard meeting the requirements of paragraph (k)(3) of this section or meet, at a minimum, the T3 rating associated with the technical standard set forth in the standard document “American National Standard Methods of Measurement of Compatibility Between Wireless Communication Devices and Hearing Aids,” ANSI C63.19-2011. Any grants of certification issued before [SIX MONTHS AFTER THE EFFECTIVE DATE OF THE FINAL RULE], under previous versions of ANSI C63.19 remain valid for hearing aid compatibility purposes.

(e) * * *

(1) ***

(iii) ***

(D)The handset was certified as meeting the requirements of paragraph (b)(1) of this section with the power reduction prior to [SIX MONTHS AFTER THE EFFECTIVE DATE OF THE FINAL RULE].

(k) ***

(3) Reliance on standards developed through a public participation and consumer consultation

process--(i) General. Wireless handsets that are compliant with a new or revised technical standard developed in accordance with this paragraph (k)(3) shall be considered hearing aid compatible for purposes of each relevant requirement of this section until such time as the Commission may determine otherwise.

(ii) Qualifying public participation standards development process. For a handset to be considered hearing aid compatible under this paragraph (k)(3), the handset must comply with a standard that was developed through a voluntary and consensus-driven process under the aegis of

a standards-setting body that is recognized by the Commission for purposes of this paragraph

(k)(3). Such process must:

(A) Be open to participation by all relevant stakeholders who have legitimate and meaningful interests in the process;

(B) Allow all interested parties, including consumers and groups representing them, to comment on a proposed standard prior to adoption and to have their comments considered by the working groups that develop the standards; and

(C) Provide an appeal mechanism that allows interested parties to seek review of standards-setting decisions.

(iii) Consultation with consumer stakeholders. For a handset to be considered hearing aid compatible under this paragraph (k)(3), the handset must comply with a standard that was developed in consultation with interested consumer stakeholders as described in this paragraph

(k)(3)(iii). Consumer stakeholders designated by the Consumer and Governmental Affairs Bureau shall be given the option to participate at the start of and throughout the standards development process and shall be invited to participate in relevant subcommittees and working groups. Any organization membership fees that may ordinarily be required for participation in the standards-setting process shall be waived for consumer organizations operating under a tax-exempt, non-profit status, and reasonable accommodations, such as sign language interpreters and communication access real-time translation (CART), shall be provided, as needed, for the attendance and participation of such designees during committee deliberations, at no cost to individuals needing such accommodations.

(l) The standards listed in this section are incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All material associated with the standards listed in this paragraph (l) is available for inspection at the Federal Communications Commission (FCC), 445 12th St. SW., Reference Information Center, Room CY-A257, Washington, DC 20554 and is available from the sources indicated below. It is also available for inspection at the National Archives and Records Administration (NARA). For

information on the availability of this material at NARA, call 202-741-6030 or go to

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.htm

These standards may also be viewed on the “ANSI Incorporated by Reference (IBR) Portal” at

<http://ibr/ansi.org/>.

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PART 68—CONNECTION OF TERMINAL EQUIPMENT TO THE TELEPHONE NETWORK

3. The authority citation for part 68 continues to read as follows:

Authority: 47 U.S.C. 154, 303.

4. Revise § 68.1 to read as follows:

§ 68.1 Purpose.

The purpose of the rules and regulations in this part is to provide for uniform standards for the protection of the telephone network from harms caused by the connection of terminal equipment and associated wiring thereto, for the compatibility of hearing aids and telephones, and the compatibility of hearing aids and customer premises equipment used to access advanced communications services, so as to ensure that, to the fullest extent made possible by technology and medical science, people who are deaf and hard of hearing have equal access to the national telecommunications network.

5. Amend § 68.2 by revising paragraph (a) to read as follows:

§ 68.2 Scope.

(a) Except as provided in paragraphs (b) and (c) of this section, the rules and regulations apply to direct connection of all terminal equipment to the public switched telephone network for use in conjunction with all services other than party line services. Sections 68.4, 68.5, 68.6, 68.112, 68.160, 68.162, 68.201, 68.211 (except paragraph (a)(2)), 68.218, 68.224, and subparts D (except §§ 68.318, 68.324(e)(1) and (2), and 68.354) and E of this part also apply to “ACS telephonic CPE” as defined in § 68.3, for the purpose of achieving compliance with hearing aid compatibility and volume control requirements.

6. Revise § 68.3 to read as follows:

§ 68.3 Definitions.

ACS Telephonic CPE. Customer premises equipment used with advanced communications services that is designed to provide 2-way voice communication via a built-in speaker intended to be held to the ear in a manner functionally equivalent to a telephone, except for mobile handsets.

Advanced communications services. Interconnected VoIP service, non-interconnected VoIP service, electronic messaging service, and interoperable video conferencing service.

Demarcation point (also point of interconnection). As used in this part, the point of demarcation and/or interconnection between the communications facilities of a provider of wireline telecommunications, and terminal equipment, protective apparatus or wiring at a subscriber's premises.

Essential telephones. Only coin-operated telephones, telephones provided for emergency use, and other telephones frequently needed for use by persons using such hearing aids.

Harm. Electrical hazards to the personnel of providers of wireline telecommunications, damage to the equipment of providers of wireline telecommunications, malfunction of the billing equipment of providers of wireline telecommunications, and degradation of service to persons other than the user of the subject terminal equipment, his calling or called party.

Hearing aid compatible. Except as used at §§ 68.4(a)(3), 68.315, and 68.414, the terms “hearing aid compatible” or “hearing aid compatibility” shall have the meaning defined in § 68.316, unless it is specifically stated that hearing aid compatibility volume control, as defined in § 68.317, is intended or is included in the definition.

Inside wiring or premises wiring. Customer-owned or controlled wire on the subscriber's side of the demarcation point.

Premises. As used herein, generally a dwelling unit, other building or a legal unit of real property such as a lot on which a dwelling unit is located, as determined by the provider of telecommunications service's reasonable and nondiscriminatory standard operating practices.

Private radio services. Private land mobile radio services and other communications services characterized by the Commission in its rules as private radio services.

Public mobile services. Air-to-ground radiotelephone services, cellular radio telecommunications services, offshore radio, rural radio service, public land mobile telephone service, and other common carrier radio communications services covered by part 22 of title 47 of the Code of Federal Regulations.

Responsible party. The party or parties responsible for the compliance of terminal equipment or protective circuitry that is intended for connection directly to the public switched telephone network or for use with advanced communications services with the applicable rules and regulations in this part and with any applicable technical criteria published by the Administrative Council for Terminal Attachments (see §§ 68.604 and 68.608) . If a Telecommunications Certification Body certifies the terminal equipment, the responsible party is the holder of the certificate for that equipment. If the terminal equipment is the subject of a Supplier's Declaration of Conformity, the responsible party shall be: the manufacturer of the equipment, or the manufacturer of protective circuitry that is marketed for use with terminal equipment that is not to be connected directly to the network, or if the equipment is imported, the importer, or if the equipment is assembled from individual component parts, the assembler. If the equipment is modified by any party not working under the authority of the responsible party, the party performing the modifications, if located within the U.S., or the importer, if the equipment is imported subsequent to the modifications, becomes the new responsible party. Retailers or original equipment manufacturers may enter into an agreement with the assembler or importer to assume the responsibilities to ensure compliance of the terminal equipment and to become the responsible party.

Secure telephones. Telephones that are approved by the United States Government for the transmission of classified or sensitive voice communications.

Terminal equipment. As used in this part, communications equipment located on customer premises at the end of a communications link, used to permit the stations involved to accomplish

the provision of telecommunications or information services. "Terminal equipment" includes ACS telephonic CPE.

7. Revise § 68.201 to read as follows:

§ 68.201 Connection to the public switched telephone network.

Terminal equipment may not be connected to the public switched network unless it has either been certified by a Telecommunications Certification Body or the responsible party has followed all the procedures in this subpart for Supplier's Declaration of Conformity. ACS telephonic equipment must be certified by a Telecommunications Certification Body or the responsible party has followed all the procedures in this subpart for Supplier's Declaration of Conformity.

8. Amend § 68.211 by revising paragraph (d) to read as follows:

§ 68.211 Terminal equipment approval revocation procedures.

* * * * *

(d) Reauthorization. A product that has had its approval revoked may not be re-authorized for a period of six months from the date of revocation of the approval.

9. Revise § 68.218 to read as follows:

§ 68.218 Responsibility of the party acquiring equipment authorization.

(a) In acquiring approval for terminal equipment to be connected to the public switched telephone network or for ACS telephonic equipment, the responsible party warrants that each unit of equipment marketed under such authorization will comply with all applicable rules and regulations of this part and with any applicable technical criteria of the Administrative Council for Terminal Attachments (see §§ 68.604 and 68.608).

(b) In the case of terminal equipment that is directly connected to the public switched telephone network, the responsible party or its agent shall provide the user of the approved terminal equipment the following:

(1) Consumer instructions required to be included with approved terminal equipment by the Administrative Council for Terminal Attachments (see §68.610);

(2) For a telephone that is not hearing aid-compatible, as defined in § 68.316 of these rules:

(i) Notice that FCC rules prohibit the use of that handset in certain locations; and

(ii) A list of such locations (see § 68.112).

(c) When approval is revoked for any item of equipment, the responsible party must take all reasonable steps to ensure that purchasers and users of such equipment are notified to discontinue use of such equipment.

10. Amend § 68.300 by revising paragraph (a) to read as follows:

§ 68.300 Labeling requirements.

(a) Terminal equipment approved as set out in this part must be labeled in accordance with any applicable requirements published by the Administrative Council for Terminal Attachments (see §§68.604 and 68.608) and with requirements of this part for hearing aid compatibility and volume control.

* * * * *

11. Add § 68.315 to subpart D to read as follows:

§ 68.315 Hearing aid compatibility; reliance on standards developed through a public participation and consumer consultation process.

(a) General. Telephones that are compliant with a new or revised technical standard developed in accordance with this section shall be considered hearing aid compatible for purposes of §§ 68.4 and 68.6 until such time as the Commission may determine otherwise.

(b) Qualifying public participation standards development process. For a telephone to be considered hearing aid compatible under this section, the telephone and telephone handset must comply with a standard that was developed through a voluntary and consensus-driven process, under the aegis of a standards-setting body that is recognized by the Commission for purposes of this section. Such process must:

(1) Be open to participation by all relevant stakeholders who have legitimate and meaningful interests in the process;

(2) Allow all interested parties, including consumers and groups representing them, to comment on a proposed standard prior to adoption and to have their comments considered by the working groups that develop the standards; and

(3) Provide an appeal mechanism that allows interested parties to seek review of standards-setting decisions.

(c) Consultation with consumer stakeholders. For a telephone to be considered hearing aid compatible under this section, the telephone and telephone handset must comply with a standard that was developed in consultation with interested consumer stakeholders as described in this paragraph (c). Consumer stakeholders designated by the Consumer and Governmental Affairs Bureau shall be given the option to participate at the start of and throughout the standards development process and shall be invited to participate in relevant subcommittees and working groups. Any organization membership fees that may ordinarily be required for participation in the standards-setting process shall be waived for consumer organizations operating under a tax-exempt, non-profit status, and reasonable accommodations, such as sign language interpreters and communication access real-time translation (CART) shall be provided, as needed, for the attendance and participation of such designees during committee deliberations, at no cost to individuals needing such accommodations.

12. Amend § 68.316 by revising the introductory text to read as follows:

§ 68.316 Hearing aid compatibility: Technical requirements.

A telephone handset is hearing aid compatible for the purposes of this section if it complies with a standard meeting the requirements of § 68.315 or with the following standard, published by the Telecommunications Industry Association, copyright 1983, and reproduced by permission of the Telecommunications Industry Association:

13. Revise § 68.317 to read as follows:

§ 68.317 Hearing aid compatibility volume control: technical standards.

(a)(1) For telephones manufactured in the United States or imported for use in the United States prior to **[TWO YEARS AFTER PUBLICATION OF THE FINAL RULE]**, such a telephone complies with the volume control requirements of this section if it complies with:

- (i) The applicable provisions of paragraphs (b) through (g) of this section;
- (ii) Paragraphs (h) and (i) of this section; or
- (iii) A standard meeting the requirements of § 68.315.

(2) For telephones manufactured in the United States or imported for use in the United States on or after **[TWO YEARS AFTER PUBLICATION OF THE FINAL RULE]**, such a telephone complies with the volume control requirements of this section if it complies with:

- (i) Paragraphs (h) and (i) of this section; or
- (ii) A standard meeting the requirements of § 68.315.

(b) An analog telephone complies with the Commission's volume control requirements if the telephone is equipped with a receive volume control that provides, through the receiver in the handset or headset of the telephone, 12 dB of gain minimum and up to 18 dB of gain maximum, when measured in terms of Receive Objective Loudness Rating (ROLR), as defined in paragraph 4.1.2 of ANSI/EIA-470-A-1987 (Telephone Instruments With Loop Signaling). The 12 dB of gain minimum must be achieved without significant clipping of the test signal. The telephone also shall comply with the upper and lower limits for ROLR given in table 4.4 of ANSI/EIA-470-A-1987 when the receive volume control is set to its normal unamplified level.

Note to paragraph (b): Paragraph 4.1.2 of ANSI/EIA-470-A-1987 identifies several characteristics related to the receive response of a telephone. It is only the normal unamplified ROLR level and the change in ROLR as a function of the volume control setting that are relevant to the specification of volume control as required by this section.

(c) The ROLR of an analog telephone shall be determined over the frequency range from 300 to 3300 HZ for short, average, and long loop conditions represented by 0, 2.7, and 4.6 km of 26 AWG nonloaded cable, respectively. The specified length of cable will be simulated by a

complex impedance. (See Figure A.) The input level to the cable simulator shall be -10 dB with respect to 1 V open circuit from a 900 ohm source.

(d) A digital telephone complies with the Commission's volume control requirements if the telephone is equipped with a receive volume control that provides, through the receiver of the handset or headset of the telephone, 12 dB of gain minimum and up to 18 dB of gain maximum, when measured in terms of Receive Objective Loudness Rating (ROLR), as defined in paragraph 4.3.2 of ANSI/EIA/TIA-579-1991 (Acoustic-To-Digital and Digital-To-Acoustic Transmission Requirements for ISDN Terminals). The 12 dB of gain minimum must be achieved without significant clipping of the test signal. The telephone also shall comply with the limits on the range for ROLR given in paragraph 4.3.2.2 of ANSI/EIA/TIA-579-1991 when the receive volume control is set to its normal unamplified level.

(e) The ROLR of a digital telephone shall be determined over the frequency range from 300 to 3300 Hz using the method described in paragraph 4.3.2.1 of ANSI/EIA/TIA-579-1991. No variation in loop conditions is required for this measurement since the receive level of a digital telephone is independent of loop length.

(f) The ROLR for either an analog or digital telephone shall first be determined with the receive volume control at its normal unamplified level. The minimum volume control setting shall be used for this measurement unless the manufacturer identifies a different setting for the nominal volume level. The ROLR shall then be determined with the receive volume control at its maximum volume setting. Since ROLR is a loudness rating value expressed in dB of loss, more positive values of ROLR represent lower receive levels. Therefore, the ROLR value determined for the maximum volume control setting should be subtracted from that determined for the nominal volume control setting to determine compliance with the gain requirement.

(g) The 18 dB of receive gain may be exceeded provided that the amplified receive capability automatically resets to nominal gain when the telephone is caused to pass through a proper on-hook transition in order to minimize the likelihood of damage to individuals with normal hearing.

(h) A telephone complies with the Commission's volume control requirements if it is equipped with a receive volume control that provides, through the receiver in the handset or headset of the telephone, 18 dB of Conversational Gain minimum and up to 24 dB of Conversational Gain maximum when measured as described in ANSI/TIA-4965-2012 (Telecommunications – Telephone Terminal Equipment – Receive Volume Control Requirements for Digital and Analog Wireline Telephones). The 18 dB of Conversational Gain minimum must be achieved without significant clipping of the speech signal used for testing.

(i) The 24 dB of Conversational Gain maximum may be exceeded provided the amplified receive capability automatically resets to a level less than 18 dB of Conversational Gain when the telephone is caused to pass through a proper on-hook transition in order to minimize the likelihood of damage to individuals with normal hearing.

(j) These incorporations by reference of paragraph 4.1.2 (including table 4.4) of American National Standards Institute (ANSI) Standard ANSI/EIA-470-A-1987, paragraph 4.3.2 of ANSI/EIA/TIA-579-1991, and ANSI/TIA-4965-2012 were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of these publications may be purchased from the American National Standards Institute (ANSI), Sales Department, 11 West 42nd Street, 13th Floor, New York, NY 10036, (212) 642-4900, or <http://global.ihf.com/>. Copies also may be inspected during normal business hours at the following locations: Consumer and Governmental Affairs Bureau, Reference Information Center, Federal Communications Commission, 445 12th Street, SW, Washington, DC 20554; and the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. These standards may also be viewed on the “ANSI Incorporated by Reference (IBR) Portal” at <http://ibr.ansi.org/>.

(k) Manufacturers and other responsible parties of telephones subject to this rule shall engage in consultation with people with hearing loss and their representative organizations for the purpose

of assessing the effectiveness of the standard adopted pursuant to paragraph (j) of this section. Such consultation shall include testing a sample of products certified to be compliant with the revised standard to evaluate whether products compliant with such standard are providing a uniform and appropriate range of volume to meet the telephone needs of consumers. Such consultation and testing shall occur by [ONE YEAR AFTER THE EFFECTIVE DATE OF THE FINAL RULE], pursuant to paragraph (j) of this section, with follow-up every three years thereafter to assess the impact of these technological changes.

14. Amend § 68.320 by revising paragraph (e) to read as follows:

§ 68.320 Supplier's Declaration of Conformity.

(e) No person shall use or make reference to a Supplier's Declaration of Conformity in a deceptive or misleading manner or to convey the impression that such a Supplier's Declaration of Conformity reflects more than a determination by the responsible party that the device or product has been shown to be capable of complying with the applicable technical.

15. Amend § 68.324 by adding paragraphs (e) introductory text and (g) to read as follows:

§ 68.324 Supplier's Declaration of Conformity requirements.

(e) For terminal equipment that is directly connected to the public switched telephone network:

* * * * *

(g) For ACS telephonic CPE subject to a Supplier's Declaration of Conformity, the responsible party shall make a copy of the Supplier's Declaration of Conformity freely available to the general public on its company website.

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